

**METHOD AND APPARATUS FOR BALANCING THE EMISSION
CURRENT OF NEUTRALIZERS IN ION THRUSTER ARRAYS**

ABSTRACT OF THE DISCLOSURE

An apparatus and method for balancing the emission current of neutralizers in ion thruster arrays is disclosed that allows a single power processing unit (PPU) to be used to drive the array. A typical embodiment includes at least one voltage-regulated power supply, each voltage-regulated power supply for driving a common element in each of the plurality of ion thrusters, the common element in each of the plurality of ion thrusters being coupled together at a common point, and a current balance circuit for providing a substantially balanced current to each neutralizer cathode of the plurality of ion thrusters by providing a voltage to the neutralizer cathodes relative to the common point.

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